

AMENDMENTS TO THE SPECIFICATION

On page 15, please amend the paragraph beginning on line 3 as follows:

By contrast, decoding of convolutional codes requires memory of previous data.

In a further embodiment of the invention, this can be provided by adding feedback paths from certain neuron output nodes to some of the inputs of the neural network, as shown in Figure 10. The structure of Figure 10 can be trained by using a Viterbi decoder as the function generator 200, and can emulate the performance of the Viterbi decoder when trained. Further detail of this arrangement is disclosed in our co-pending UK Patent Application Number GB0304685.1 and co-pending Korean Patent Application Number 2004-13497, having agents reference J00045187GB. Other aspects of modulation and demodulation processes for which the invention is suitable are disclosed in our co-pending UK Patent Application Number 0219740.8 and co-pending Korean Patent Application Number 2003-58543, having agents reference J00044623GB.